

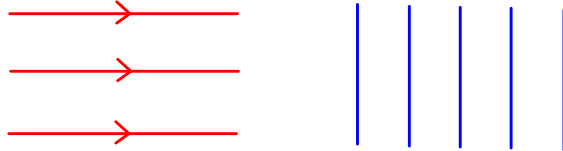
## Wavefronts and Rays

Usually we draw light as rays and water ripples as wavefronts, but all waves can be represented both ways.

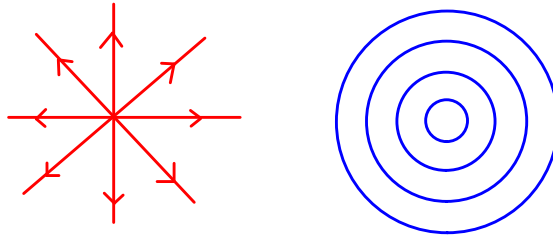
Example 1: waves moving to the right

light - shown as rays

ripples - shown as wavefronts



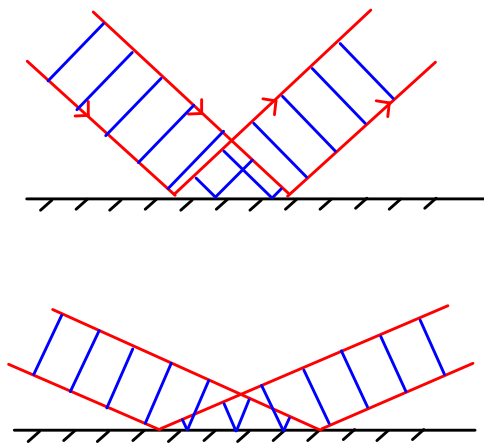
Example 2: waves spreading out from a point



Wavefronts are always perpendicular to rays.

We can use wavefronts **and** rays on the same diagram.

Example 3: reflection



Example 4: refraction

